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ABSTRACT

Innovations in communications, space, medicine, and other technologies are sure to have an impact on the world of tomorrow and the way we view that world. This guide to the literature on future technology is not intended to be a comprehensive bibliography. It is designed to provide the reader with a set of resources that can be used to focus on the topic. The document lists the subject headings used by the Library of Congress in cataloging information on science and technology. It also contains citations of materials categorized as: (1) brief introductions; (2) basic texts; (3) additional titles; (4) handbooks and encyclopedias; (5) other bibliographies; (6) conference proceedings; (7) government publications; (8) abstracting and indexing services; (9) journal articles; (10) technical reports; and (11) additional sources of information. (TW)

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The Future: Science & Technology Enter the 21st Century Compiled by Jan Ezkovich

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SCOPE: Once the sole territory of fortune tellers and soothsayers, the future is now open to contemplation by everyone. Innovations in communications, space, medicine, and other technologies are sure to have an impact on the world of tomorrow and the way we view that world. Scientists, businesses and governments project future developments by extrapolating from current trends, using methods that range from simple, informed hunches to complex computer analysis. In this way, science fiction becomes science reality.

This guide is intended for those who wish to review what authors in various fields have to say about future technology. Not intended as a comprehensive bibliography, this guide is designed--as the name of the series implies--to put the reader "on target."

BRIEF INTRODUCTIONS

Branscomb, Lewis M. Science in 2006. American scientist, v. 74,
Nov./Dec. 1986: 650-658. LJ85.S502

Future technology. In An Age of innovation: the world of electronics 1930-2000. By the editors of Electronics. New York, McGraw-Hill, c1981. p. 220-235. TK7809.A33 1981*

Tindell, J. P. The art and science of futuring. Parks & recreation, v. 21, May 1986: 32-36. SB481.A1P35

SUBJECT HEADINGS used by the Library of Congress, under which books on future technology can be located in most card, book, and online catalogs, include the following:

TECHNOLOGICAL FORECASTING (Highly relevant)
TECHNOLOGICAL INNOVATIONS (Highly relevant)
TWENTIETH CENTURY--FORECASTS (Highly relevant)
TWENTY-FIRST CENTURY--FORECASTS (Highly relevant)
AGRICULTURAL INNOVATIONS (Relevant)

*Available in the reference collection, Science Reading Room

SE 048733

MEDICAL INNOVATIONS (Relevant)

INVENTIONS (Related)

FORECASTING (More general)

TECHNOLOGY AND CIVILIZATION (More general)

See also subdivisions FORECASTING and TECHNOLOGICAL INNOVATIONS under specific subjects, e.g., TELECOMMUNICATIONS--TECHNOLOGICAL INNOVATIONS, AUTOMOBILES--UNITED STATES--TECHNOLOGICAL INNOVATIONS, FOOD SUPPLY--FORECASTING, CONSTRUCTION INDUSTRY--UNITED STATES--FORECASTING.

Where machine files allow key-word searching, one can locate books with future or twenty-first century in their titles by combining these words with the subject wanted, e.g., metals future, farming twenty-first century.

BASIC TEXTS

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251 p. T20.C54 1984

Davidson, Frank P., and John Stuart Cox. Macro: a clear vision of how science and technology will shape our future. New York, Morrow, 1983. 450 p. TA153.D38 1983*

Drexler, K. Eric. Engines of creation. Garden City, N.Y., Anchor Press/Doubleday, 1986. 298 p. T47.D74 1986
Bibliography: p. 243-283.

An Introduction to technological forecasting. 2nd ed. Edited by Joseph Paul Martino. London, New York, Gordon and Breach, 1987.
118 p. T174.I59 1987

Kerrod, Robin. The world of tomorrow. New York, Gallery Press, 1980.
92 p. CB161.K47 1980
Presents projections, based on present-day technology, or life in the future, including how world problems may be overcome and how people may change and extend their environment.
Intended for younger readers.

Martin, James. Technology's crucible: an exploration of the explosive impact of technology on society during the next four decades. Englewood Cliffs, N.J., Prentice-Hall, c1987. 206 p. T20.M348 1987

Stableford, Brian, and David Langford. The third millennium: a history of the world: AD 2000-3000. New York, Knopf, c1985. 224 p. CB161.S68 1985

SPECIALIZED TITLES

Advanced technology warfare: a detailed study of the latest weapons and techniques for warfare today and into the 21st century, by Richard S. Friedman and others. New York, Harmony Books, c1985. 208 p. UF500.A38 1985*

Agriculture 2000: a look at the future. A study by Columbus Division, Battelle Memorial Institute. Sponsored by the Production Credit Associations on their 50th anniversary. Columbus, Battelle Press, c1983. 183 p. HD1761.A6226 1983*

Flanigan, Carl. The future of American agriculture: a critical overview of the agricultural policy of the United States. Lincolnwood, Ill., National Textbook Company, c1986. 234 p. HD1761.F57 1986
Bibliography: p. 118-124.

Gross, Lynne S. The new television technologies. 2nd ed. Dubuque, Iowa, W. C. Brown Publishers, c1986. 240 p. TK6643.G7 1986

Lambert, Mark. Medicine in the future. New York, Bookwright Press, 1986. 48 p. RA418.5.M4L36 1986
Bibliography: p. 46.

McDonough, Thomas R. Space: the next twenty-five years. New York, Wiley, 1987. 237 p. TL790.M37 1987*
Bibliography: p. 221-228.

Pharmaceuticals in the year 2000: the changing context for drug R&D. Edited by Clement Bezold. Alexandria, Va., Institute for Alternative Futures, c1983. 154 p. HD9666.5.P48 1983*
Contains papers presented at a conference held Mar. 3-4, 1982, in Millwood, Va., sponsored by the Institute for Alternative Futures.

Seiffert, Ulrich, and Peter Walzer. The future for automotive technology. London, Dover, N.H., F. Pinter, 1984. 197 p. TL240.S357 1984

Technology and the future of health care. Edited by John B. McKinlay. Cambridge, Mass., MIT Press, c1982. 454 p. (Milbank reader, 8) RA418.5.M4T4 1982
Selections from Milbank Memorial Fund quarterly.

RELATED TITLES

Ardley, Neil. Our future needs. London, New York, Franklin Watts, 1982. 37 p. T174.A68 1982
Discusses future possibilities in genetic engineering, energy sources, and other technological areas, based on current research and technologies.
Intended for younger readers.

Kupperman, Robert H. Technological advances and consequent dangers: growing threats to civilization. Washington, Center for Strategic and International Studies, Georgetown University, c1984. 11 p. (Significant issues series, v. 6, no. 1) T14.5.K87 1984
"A paper presented at the International Symposium on the Coevolution of Man and Biosphere, Helsinki, Finland, September 1983."

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Martino, Joseph Paul. Technological forecasting for decision making. 2nd ed. New York, North-Holland, c1983. 385 p. T174.M38 1983*

HANDBOOKS, ENCYCLOPEDIAS and DIRECTORIES

Hord, R. Michael. CRC handbook of NASA future missions and payloads. Boca Raton, Fla., CRC Press, 1987? 2 v. TL862.U55H67 1987*
"Derived from the fifth issue of the NASA space systems technology model published in early 1984."

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World Future Society. The Future: a guide to information sources. 2nd ed. Washington, World Future Society, c1979. 722 p. CB158.W67 1979*

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"A monthly abstract of books, articles and reports concerning forecasts, trends, and ideas about the future."
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Roxson, Christine, and Judith Mistichelli. Futures resources: a library guide for clairvoyants. Monticello, Ill., Council of Planning Librarians, 1978. 24 p. (Council of Planning Librarians. Exchange bibliography, no. 1472) Z5942.C68 no. 1472

GOVERNMENT PUBLICATIONS

Agriculture in the future: an outlook for the 1980's and beyond. Washington, U.S. Dept. of Agriculture, Economic Research Service, 1984. 62 p. (Agriculture information bulletin, no. 484) S21.A74 no. 484

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Global 2000 Study (U.S.). The global 2000 report to the President of the U.S., entering the 21st century: a report. Prepared by the Council on Environmental Quality and the Department of State. Gerald O. Barney, study director. New York, Pergamon Press, 1980. 2 v.

HC79.E5G59 1980*

United States. Congress. House. Committee on Science and Technology. Oversight review of the five-year outlook report on science and technology: hearing ... Ninety-eighth Congress, second session, January 24, 1984. Washington, U.S. Govt. Print. Off., 1985. 303 p.

KF27.S39 1984e

United States. Congress. House. Committee on Science and Technology. Subcommittee on Investigations and Oversight. New technology and the future of steel: hearing ... Ninety-ninth Congress, first session, July 22, 1985. Washington, U.S. Govt. Print. Off., 1985. 541 p.

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United States Congress. House. Committee on Science and Technology. Subcommittee on Space Science and Applications. Space science: past, present, and future: hearings ... Ninety-ninth Congress, first session, October 8, 9, 10, 1985. Washington, U.S. Govt. Print. Off., 1986. 207 p.

KF27.S3995 1985d

----- Space science: past, present, and future: report. Prepared by the Subcommittee on Space Science and Applications, transmitted to the Committee on Science and Technology, House of Representatives, Ninety-ninth Congress, second session. Washington, U.S. Govt. Print. Off., 1986. 37 p.

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CONFERENCE PROCEEDINGS

Agricultural chemicals of the future: invited papers presented at a symposium held May 16-19, 1983, at the Beltsville Agricultural Research Center (BARC), Beltsville, Maryland. Edited by James L. Hilton. Organized by the BARC Symposium VIII Committee; sponsored by the Beltsville Agricultural Research Center, Northeastern Region, Agricultural Research Service, United States Department of Agriculture. Totowa, N.J., Rowman & Allanheld, 1985. 464 p. (Beltsville symposia in agricultural research, 8)

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Communications and the future: prospects, promises, and problems. Edited by Howard F. DidSBury, Jr. Bethesda, Md., World Future Society, c1982. 357 p.

P96.T42C62 1982

"Prepared in conjunction with the fourth General Assembly of the World Future Society, held in Washington, D.C., July 18-22, 1982."

Habitats tomorrow: homes and communities in an exciting new era: selections from the Futurist. Edited by Edward Cornish. Bethesda, Md., World Future Society, c1984. 160 p.

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"Proceedings of a symposium organised by Section X at the annual
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 proceedings of a symposium held in Tbilisi, USSR, 6-11 December
 1981. Edited by Augusto Forti. Paris, UNESCO; Oxford, New York,
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Essays presented at a symposium held in Tbilisi, USSR, as part
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Special Symposium on Critical Emerging Issues in Biomedical Engineering, Dallas, Tex., 1986. Proceedings of a Special Symposium on Critical Emerging Issues in Biomedical Engineering. Held concurrently with the Eighth Annual Conference of the IEEE Engineering in Medicine and Biology Society. Edited by Charles J. Robinson and George V. Kondraske. New York, Institute of Electrical and Electronics Engineers; Piscataway, N.J., order from IEEE Service Center, c1986. 92 p. R856.A2S69 1986

Symposium: Law of the Sea. Louisiana law review, v. 45, July 1985:
 1143-1267. K12.0863

Partial contents:--Technology and the Law of the Sea.--The effects of fisheries law in the year 2010.--The effects of the Law of the Sea on future marine scientific research and of marine scientific research on the future of Law of the Sea.--Mining of the seabed in the year 2010.

ABSTRACTING AND INDEXING SERVICES that index relevant journal articles and other literature are listed below. Some suggested terms are given as aids in searching.

Applied Science & Technology Index (1913-) Z7913.I7*

See: Forecasts
 Technological Change

Business Periodicals Index (1958-) Z7614.C81B983

See: Industrial Research
 New Products
 Technological Forecasting
 Technological Innovations

Electrical & Electronics Abstracts (1903-) Z5833.E37*

See: Technological Forecasting

General Science Index (1978-) Z7401.G46*

See: Technological Innovations
 Technology
 Products, New

Magazine Index (1976-) Available on film/ROM reader

See: New Products
 Science--Forecasts
 Technological Forecasting
 Technological Innovations
 Technology and Civilization--Forecasts

Public Affairs Information Service. Bulletin (1915-) Z7163.P9

See: Medical Technology
 Space Research
 Space Technology
 Technological Innovations

Readers' Guide to Periodical Literature (1900-) AI3.R45

See: Forecasting
 Products, New
 Technological Forecasting
 Technological Innovations

Other indexes, listed here, should be used for an exhaustive search. Only a limited return can be expected for the time spent.

Index Medicus (1960-) Z6660.I42*

See: Technology Assessment, Biomedical--Trends
 Technology, Medical--Trends
 Technology, Pharmaceutical--Trends
 Technology, Radiologic--Trends

International Aerospace Abstracts (1961-) TL500.I57*

See: Research & Development
 Technological Forecasting
 Technology Assessment

JOURNALS that often contain articles relevant to future technology are

Future Generations Computer Systems: FGCS QA75.5.F87

Futures HB3730.F8

Futures Research Quarterly Unbound issues in N&CPR

Futurics: a Quarterly Journal of Futures Research CB161.F793

The Futurist: a Journal of Forecasts, Trends, and Ideas About the Future CB158.F88

Technological Forecasting and Social Change T174.T38

Note: Consult reference librarian for location of abstracting and indexing services in the Science Reading Room.

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TECHNICAL REPORTS and other types of literature are indexed in the following guides:

- Government Reports Announcements & Index (1946-) Z7916.G78*
- See: Technological Forecasting
 Technology Forecasting
 Technology Utilization